

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : KAO CORP

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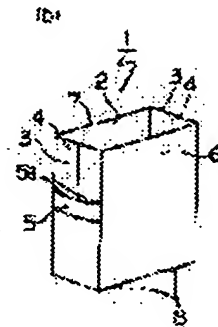
(72)Inventor : WATANABE YUTAKA

(54) HOUSING BAG, PRODUCTION THEREOF AND OPENING OF HOUSING BAG

(57)Abstract:

PURPOSE: To provide a housing bag capable of being widely opened easily and stably, easy to house an article and also easy to produce.

CONSTITUTION: In a bottomed cylindrical housing bag equipped with an opening part 2 opened upwardly and gusset parts 4 formed by inwardly bending the intermediate parts in the lateral direction of side surface parts 3 as bent base parts 4a, bands 5 for opening the housing bag protruding outward in a bent state when the gusset parts 4 are bent and opposed to the gusset parts 4 on the inner surface side thereof when the gusset parts 4 are stretched are provided to the gusset parts 4 and the plate-shaped elements for opening the housing bag can be inserted in the gaps between the bands 5 and the side surface parts 3.



LEGAL STATUS

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CLAIMS

[Claim(s)]

[Claim 1] In the storage bag of the shape of a cylinder like object with base equipped with the la Gazette section 4 by which the crosswise pars intermedia of a lateral portion 3 was bent and formed in the method of inside as bending base 4a while having the opening 2 which carries out opening towards the upper part The band 5 for storage bag openings with which an inside counters the above-mentioned la Gazette section 4 at this la Gazette section 4 in the condition of having lengthened a bending projection and this la Gazette section 4 outside in the condition of having bent this la Gazette section 4 is formed. It is the storage bag characterized by having made possible [insertion of the plate for storage bag openings] to the meantime between this band 5 and the above-mentioned lateral portion 3.

[Claim 2] the width of face of the above-mentioned lateral portion 3 formed when both-ends 5a of the above-mentioned band 5 has pasted the above-mentioned la Gazette section 4 and the die length of this band 5 except a part for the jointing lengthens the above-mentioned la Gazette section 4, and abbreviation — the storage bag according to claim 1 characterized by being the same die length.

[Claim 3] It is the manufacture approach of a storage bag according to claim 1 or 2, and conveying the band-like bag formation material 10 in the die-length direction, the crosswise both-ends 10a is involved in, and this bag formation material 10 is formed in tubed. Subsequently It folds up in the shape of flat so that both-sides section 10b of the peripheral wall section may be bent for the bag formation material 10 formed in this tubed one to the inner direction and the above-mentioned la Gazette section 4 may be formed, and subsequently the seal of the above-mentioned crosswise both-ends 10a of the above-mentioned bag formation material 10 is carried out. Subsequently The both-sides section of the bag formation material 10 which turned the bending section 5b outside, and carried out [above-mentioned] the seal of the band 5 used as the half-chip box is supplied, and both-ends 5a of this band 5 is pasted up on this bag formation material 10. Subsequently The manufacture approach of the storage bag characterized by cutting it by the conveyance direction back side of the seal location while carrying out the seal of the above-mentioned bag formation material 10 in the die-length direction at intervals of predetermined.

[Claim 4] the opening approach of the storage bag characterized by being the opening approach of a storage bag according to claim 1 or 2, supplying this storage bag where [flat] the above-mentioned la Gazette section 4 and the above-mentioned band 5 are bent, inserting the plate 9 for storage bag openings of a pair subsequently to between this chip box music wooden-clogs la Gazette section 4 and bands 5, rotating this plate 9 90 degrees of abbreviation subsequently to the circumference of the shaft of the path of insertion, and carrying out opening.

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CLAIMS

[Claim(s)]

[Claim 1] In the storage bag of the shape of a cylinder like object with base equipped with the la Gazette section 4 by which the crosswise pars intermedia of a lateral portion 3 was bent and formed in the method of inside as bending base 4a while having the opening 2 which carries out opening towards the upper part The band 5 for storage bag openings with which an inside counters the above-mentioned la Gazette section 4 at this la Gazette section 4 in the condition of having lengthened a bending projection and this la Gazette section 4 outside in the condition of having bent this la Gazette section 4 is formed. It is the storage bag characterized by having made possible [insertion of the plate for storage bag openings] to the meantime between this band 5 and the above-mentioned lateral portion 3.

[Claim 2] the width of face of the above-mentioned lateral portion 3 formed when both-ends 5a of the above-mentioned band 5 has pasted the above-mentioned la Gazette section 4 and the die length of this band 5 except a part for the jointing lengthens the above-mentioned la Gazette section 4, and abbreviation — the storage bag according to claim 1 characterized by being the same die length.

[Claim 3] It is the manufacture approach of a storage bag according to claim 1 or 2, and conveying the band-like bag formation material 10 in the die-length direction, the crosswise both-ends 10a is involved in, and this bag formation material 10 is formed in tubed. Subsequently It folds up in the shape of flat so that both-sides section 10b of the peripheral wall section may be bent for the bag formation material 10 formed in this tubed one to the inner direction and the above-mentioned la Gazette section 4 may be formed, and subsequently the seal of the above-mentioned crosswise both-ends 10a of the above-mentioned bag formation material 10 is carried out. Subsequently The both-sides section of the bag formation material 10 which turned the bending section 5b outside, and carried out [above-mentioned] the seal of the band 5 used as the half-chip box is supplied, and both-ends 5a of this band 5 is pasted up on this bag formation material 10. Subsequently The manufacture approach of the storage bag characterized by cutting it by the conveyance direction back side of the seal location while carrying out the seal of the above-mentioned bag formation material 10 in the die-length direction at intervals of predetermined.

[Claim 4] the opening approach of the storage bag characterized by being the opening approach of a storage bag according to claim 1 or 2, supplying this storage bag where [flat] the above-mentioned la Gazette section 4 and the above-mentioned band 5 are bent, inserting the plate 9 for storage bag openings of a pair subsequently to between this chip box music wooden-clogs la Gazette section 4 and bands 5, rotating this plate 9 90 degrees of abbreviation subsequently to the circumference of the shaft of the path of insertion, and carrying out opening.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the opening approach of a storage bag at the storage bag equipped with the la Gazette section and its manufacture approach, and a list.

[0002]

[Description of the Prior Art] In a production process, the Taira chip box of the storage bag (the so-called la Gazette bag) of the shape of a cylinder like object with base equipped with the la Gazette section by which the crosswise pars intermedia of a lateral portion was bent and formed in the method of inside as a bending base as everyone knows is carried out flatly, and it is manufactured. And the above-mentioned la Gazette section was lengthened, opening of the opening was carried out, and goods are contained inside.

[0003] Although the approach of carrying out negative pressure suction and carrying out opening of the transverse plane and tooth back of a storage bag with an adhesive disk as a conventional technique about the opening approach of a **** storage bag was learned, since maintenance of a storage bag was also unstable, when opening of the opening could not be carried out widely, and goods were contained continuously after that, a certain means to support a bag had to be provided only by the absorption by the adhesive disk.

[0004] Moreover, although the method of using equipment equipped with four sets of the pinching objects which have a fixed pawl and an actuation pawl in JP,55-90506,U, pinching the four corners of a storage bag with the above-mentioned pinching object, and moving this pinching object in the direction which extends opening is proposed as other conventional techniques In order to pinch the four corners of a storage bag by each above-mentioned pawl, pinching area is narrow, and since the pinching force has also been acquired by the elastic force of a spring, it has the technical problem which lacks in stability. [0005] It is stabilized, opening can be carried out widely and the purpose of this invention also has receipt of subsequent goods in easy and manufacture providing an easy storage bag and its easy manufacture approach, and a list with the opening approach of this storage bag easily.

[0006]

[Means for Solving the Problem] While invention of this invention according to claim 1 is equipped with opening which carries out opening towards the upper part In the storage bag of the shape of a cylinder like object with base equipped with the la Gazette section by which the crosswise pars intermedia of a lateral portion was bent and formed in the method of inside as a bending base The band for storage bag openings with which an inside counters the above-mentioned la Gazette section at this la Gazette section in the condition of having lengthened a bending projection and this la Gazette section outside in the condition of having bent this la Gazette section is prepared. The above-mentioned purpose is attained between this band and the above-mentioned lateral portion by providing the meantime with the storage bag characterized by having attained insertion of the plate for storage bag openings.

[0007] moreover, the width of face of the above-mentioned lateral portion formed when the both ends of ** and the above-mentioned band have pasted up invention of this invention according to claim 2 on the above-mentioned la Gazette section in the storage bag according to claim 1

and the die length of this band except a part for the jointing lengthens the above-mentioned la Gazette section and abbreviation — the storage bag characterized by being the same die length is offered.

[0008] Invention of this invention according to claim 3 is the manufacture approach of a storage bag according to claim 1 or 2, conveying band-like bag formation material in the die-length direction, involves in the crosswise both ends and forms this bag formation material in tubed. Subsequently It folds up in the shape of flat so that the both-sides section of the peripheral wall section may be bent for the bag formation material formed in this tubed one to the inner direction and the above-mentioned la Gazette section may be formed, and subsequently the seal of the above-mentioned crosswise both ends of the above-mentioned bag formation material is carried out. Subsequently The both-sides section of the bag formation material which turned the bending section outside and carried out [above-mentioned] the seal of the band used as the half-chip box is supplied, and the both ends of this band are pasted up on this bag formation material. Subsequently The manufacture approach of the storage bag characterized by cutting it by the conveyance direction back side of the seal location while carrying out the seal of the above-mentioned bag formation material in the die-length direction at intervals of predetermined is offered.

[0009] moreover, invention of this invention according to claim 4 as the desirable opening approach used for opening of the storage bag of this invention It is the opening approach of a storage bag according to claim 1 or 2, and a storage bag is supplied where [flat] the above-mentioned la Gazette section and the above-mentioned band are bent. subsequently to between this chip box music wooden-clogs la Gazette section and bands The plate for storage bag openings of a pair is inserted, and the opening approach of the storage bag characterized by making it rotate 90 degrees of abbreviation, and subsequently to the circumference of the shaft of the path of insertion carrying out opening of this plate is offered.

[0010]

[Function] In the storage bag of this invention according to claim 1 Where the above-mentioned la Gazette section and the above-mentioned band are bent, the plate for storage bag openings is inserted between the above-mentioned lateral portion and the above-mentioned band. the storage bag concerned is easy by rotating this plate to the circumference of the shaft of the path of insertion, and making it deform so that it may counter, where the inside and the above-mentioned la Gazette section of the above-mentioned band are extended mutually — and it is stabilized and opening is carried out widely.

[0011] the width of face of the above-mentioned lateral portion formed in the storage bag of this invention according to claim 2 when the die length of this band except a part for jointing lengthens the above-mentioned la Gazette section, and abbreviation — since it is the same die length, support of the lateral portion at still easier and the time of being able to carry out opening of the storage bag widely by being stabilized, and carrying out opening is also made certainly. Moreover, since the both ends of the above-mentioned band have pasted the la Gazette section of the above-mentioned storage bag, where the storage bag concerned is folded up, while the both ends of a band hide in the la Gazette circles, the amount of jointing hides by the inside of the band concerned, and also where the la Gazette section is extended, a fine sight is not spoiled.

[0012] In the manufacture approach of the storage bag of this invention according to claim 3, first, while band-like bag formation material is conveyed in the die-length direction, the crosswise both ends are involved in and this bag formation material is formed in tubed. Subsequently, it is folded up in the shape of flat so that the both-sides section of the peripheral wall section of the bag formation material formed in this tubed one may be bent in the inner direction and the above-mentioned la Gazette section may be formed. Subsequently, the seal of the above-mentioned crosswise both ends of the above-mentioned bag formation material is carried out. Subsequently, the both-sides section of the bag formation material to which the band used as the half-chip box turned the bending section outside, and carried out [above-mentioned] the seal is supplied, and the both ends of this band paste this bag formation material. Subsequently, the seal of the above-mentioned bag formation material is carried out in

the die-length direction at intervals of predetermined, and it is cut by the conveyance direction back side of the seal location.

[0013] In the opening approach of the storage bag of this invention according to claim 4 A storage bag is supplied where [flat] the above-mentioned la Gazette section and the above-mentioned band are bent. subsequently to between this bending **** la Gazette section and bands While being in the condition that the above-mentioned la Gazette section was extended by inserting the plate for storage bag openings of a pair, and subsequently to the circumference of the shaft of the path of insertion rotating this plate 90 degrees of abbreviation, a lateral portion is supported with the above-mentioned plate for openings, and a storage bag will be in easy and the condition of it having been stabilized and having carried out opening widely. And the crimp to the inside is suppressed for the la Gazette section, an opening condition is stabilized, and is maintained, and receipt of subsequent goods is also performed easily.

[0014]

[Example] Hereafter, the example of this invention is explained to a detail, referring to an accompanying drawing.

[0015] Drawing 1 shows the 1st example of the storage bag concerning this invention. In drawing, the sign 1 shows the storage bag.

[0016] As shown in drawing 1, the above-mentioned storage bag 1 has the gestalt of the shape of a cylinder like object with base equipped with the opening 2 which carries out opening towards the upper part, and the la Gazette section 4 by which the crosswise pars intermedia of a lateral portion 3 was bent and formed in the method of inside as bending base 4a.

[0017] As shown in drawing 1 (a), in the condition of having bent the la Gazette section 4, the band 5 for storage bag 1 openings is formed in the above-mentioned la Gazette section 4 so that a bending protrusion may be carried out outside from a storage bag 1. Moreover, in the condition of having lengthened the la Gazette section 4, as shown in drawing 1 (b), this band 5 is formed so that that inside side may counter abbreviation parallel at the la Gazette section 4. And it is

[0018] for which insertion of the plate 9 for storage bag openings mentioned later in the meantime is attained between a band 5 and the above-mentioned lateral portion 3. the width of face of the above-mentioned lateral portion 3 formed when the external surface side of both-ends 5a has pasted up the above-mentioned band 5 on the above-mentioned la Gazette section 4 and the die length except a part for the jointing lengthens the above-mentioned la Gazette section 4, and abbreviation — it is set as the same die length.

[0019] Moreover, in this example, although lower limit section 4b of the above-mentioned la Gazette section 4 is pasted up by lower limit section 6a of the adjoining forward surface part 6 or lower limit section 7a of the tooth-back section 7, and predetermined width of face, the part which counters mutually [lower limit section 4b of the la Gazette section 4] is not pasted up.

[0020] And it sets in the condition of having bent the above-mentioned la Gazette section 4 and a band 5. In the condition of the opening 2 having become the almost closed flat gestalt (referring to drawing 1 (a)), and having lengthened the la Gazette section 4 and a band 5 Opening 2 serves as a gestalt opened widely, and it has made as [form / the stable pars basilaris ossis occipitalis 8] further by bulging the lower part of bending base 4a of the la Gazette section 4 outside (refer to drawing 1 (b)).

[0021] In this invention, although especially the bag formation material that forms a storage bag is not restricted, when applying the storage bag of this invention to the storage bag which contains a powder detergent etc., in order that it may carry out heat welding, the elastic film which laminated L-LDPE is preferably used for an innermost layer. Moreover, in this invention, although especially the band formation material that forms a band is not restricted, when applying the storage bag of this invention to the storage bag which contains a powder detergent etc., the film which laminated L-LDPE is preferably used for a heat joining side.

[0022] Next, it explains based on operation according the opening approach of the storage bag concerning this invention to the storage bag 1 of the above-mentioned example, referring to drawing 2 (a) - (c).

[0023] first — while point 9a sharpens in tapering off — the width of face of the lateral portion 3 of the above-mentioned storage bag 1 — abbreviation — the plate 9 for storage bag openings of

the pair which has equal width of face — the toe 9b which counters mutually — the spacing d of bending base 4a of the la Gazette section 4 of the above-mentioned storage bag 1 — doubling — and the plate surface 9c — abbreviation — as it becomes flat-tapped, it arranges in an erection condition. And where [flat] the above-mentioned la Gazette section 4 and the above-mentioned band 5 are bent for the above-mentioned storage bag 1, the opening 2 is turned up and it supplies above the above-mentioned plate 9 (refer to drawing 2 (a)).

[0024] Subsequently, as shown in drawing 2 (b), this plate 9 is moved so that toe 9b of the above-mentioned plate 9 may be made to meet bending base 4a of the above-mentioned la Gazette section 4, and the above-mentioned plate 9 is inserted between the bent la Gazette section 4 and a band 5. Although it is made to move up and the plate 9 is made to insert in this example, the plate 9 is fixed to the orientation depending on the rigidity of a storage bag 1, a storage bag 1 may be moved caudad and a plate 9 may be made to insert between the la Gazette section 4 and a band 5.

[0025] Subsequently, this direction or hard flow is made to rotate the inserted plate 9 of a pair 90 degrees of abbreviation to the circumference of the shaft of the path of insertion (arrow head R), respectively.

[0026] And as shown in drawing 2 (c), the abbreviation maximum opening of the above-mentioned opening 2 is carried out. In order that the plate 9 between the above-mentioned la Gazette section 4 and a band 5 may support a storage bag 1 from both the sides of that lateral portion 3 at this time, the crimp to the inside is suppressed for the la Gazette section 4, and an opening condition is stabilized and is maintained.

[0027] thus, the width of face of the above-mentioned lateral portion 3 which according to the storage bag 1 of the above-mentioned example, and the opening approach of the storage bag of this invention using this is formed in the condition of having lengthened the band 5 when the die length except jointing of the both-ends 5a lengthens the above-mentioned la Gazette section 4 and abbreviation — easy in the storage bag 1 concerned, since it is the same die length — and it is stabilized and opening can be carried out widely. Moreover, since it will hide [the condition of having been extended] by the inside of a band 5 while both-ends 5a of a band 5 hides where the storage bag 1 concerned is folded up since both-ends 5a of the above-mentioned band 5 has pasted the la Gazette section 4 of a storage bag 1, a fine sight is not spoiled. Furthermore, since the configuration is easy, manufacture is also easy. In addition, since the lateral portion 3 formed can be certainly supported with each above-mentioned plate 9 when opening is carried out, an opening condition is stabilized, and is maintained and receipt of subsequent goods can also be performed easily. Especially, it can stabilize and convey by making it move to a receipt process the whole plate 9 in the state of drawing 2 (c), with the opening condition of a storage bag maintained.

[0028] Next, the manufacture approach of the storage bag concerning this invention is explained based on manufacture of the storage bag 1 of the above-mentioned example, referring to drawing 3. In addition, in drawing 3, illustration of a conveyance means, cutting equipment, etc. is omitted for convenience.

[0029] First, conveying the band-like bag formation material 10 wound in the shape of a roll in the die-length direction, the crosswise both-ends 10a is caudad involved in with bag manufacture equipment E1, and the bag formation material 10 is formed in tubed.

[0030] Subsequently, it conveys ahead further in the condition of having folded up in the vertical direction in the shape of flat (the so-called la Gazette chip box) so that both-sides section 10b of the peripheral wall section might be bent for the bag formation material 10 formed in the above-mentioned tubed one to the inner direction and the above-mentioned la Gazette section 4 of the above-mentioned storage bag 1 might be formed.

[0031] Subsequently, with the pin center, large sealing device E2, heat welding is carried out and the seal of the above-mentioned crosswise both-ends 10a of the above-mentioned bag formation material 10 is carried out.

[0032] Subsequently, cutting equipment (not shown) cuts the band-like band formation material 11 which used as the half-chip box the band-like band formation material 11 wound in the shape of a roll with bending equipment E3, conveying from the both sides of the above-mentioned bag

formation material 10, and used it as this half-chip box by making that longitudinal direction into the conveyance direction for every predetermined die length, and the above-mentioned band 5 is formed.

[0033] Subsequently, the both-sides section of the bag formation material 10 which turned that bending section 5b outside, and carried out [above-mentioned] the seal of this band 5 is supplied, and it arranges in the part which bent that both-ends 5a in order to form the above-mentioned la Gazette section 4 of the bag formation material 10, and heat welding of the part which forms the la Gazette section 4 the external surface side of this both-ends 5a is carried out with a sealing device E4, and it pastes up. Under the present circumstances, heat welding of the four corners (corner with the lateral portion, the forward surface part, or the tooth-back section in a storage bag to make) of the bag formation material 11 is carried out in the die-length direction (the height direction in a storage bag) by predetermined width of face, and the rigidity of the storage bag to manufacture can be raised to adhesion of a band 5 and coincidence.

[0034] Subsequently, at intervals of predetermined, heat welding is carried out, the seal of the above-mentioned bag formation material 10 is carried out in the die-length direction with a sealing device (not shown), cutting equipment (not shown) cuts to the conveyance direction back side of the seal location further, and manufacture of the above-mentioned storage bag 1 is completed.

[0035] By performing the above process according to the bearer rate of the bag formation material 10, it is stabilized continuously and the storage bag 1 which does the above-mentioned effectiveness so can be manufactured.

[0036] The storage bag concerning this invention is not limited to the storage bag 1 of the above-mentioned example, and can change the dimension, a configuration, etc. suitably in the range which does not deviate from the purpose of this invention.

[0037] For example, while sticking the back up plate P on the inside of the forward surface part 21 and the tooth-back section 22, raising the rigidity like the storage bag 20 of the 2nd example shown in (a) of drawing 4 , and (b) and raising opening nature further, the appearance of the storage bag after goods receipt can also be made beautiful. The storage bag 20 of this 2nd example can be easily manufactured by inserting the back up plate P from the upper part of the storage bag 1 of the above-mentioned example, and sticking on that forward surface part 6 and the tooth-back section 7 with adhesives etc., as shown in drawing 4 (c). For the above-mentioned back up plate P, rigidity is weighing capacity 300 - 600 g/m². If comparable as the paper board, although especially the material etc. is not restricted, it will consist of materials, such as paper and plastics, and an about 0.3-1.0mm thing will be preferably used for thickness, for example.

[0038] Moreover, the inside side of both-ends 31a of a band 31 can also be pasted up on the forward surface part 32 and the tooth-back section 33 like the storage bag 30 of the 3rd example shown in drawing 5 (a) and (b). Furthermore, when bag formation material has comparatively high rigidity, die length except jointing of a band 41 can also be made shorter than the width of face of the lateral portion 43 formed in the condition of having lengthened the la Gazette section 42 like the storage bag 40 of the 4th example shown in drawing 6 (a) and (b).

[0039] Furthermore, also with the gestalt of the pars basilaris ossis occipitalis of a storage bag, it is not limited to the gestalt of the pars basilaris ossis occipitalis 8 of the storage bag 1 of the above-mentioned example, and can also consider as a gestalt like the pars basilaris ossis occipitalis 51 of the storage bag 50 of the 5th example shown in drawing 7 (a) and (b).

[0040] To say nothing of not being what is limited to manufacture of the storage bag 1 of the 1st example of the above, the manufacture approach of the storage bag concerning this invention can change a production process suitably according to the gestalt, when manufacturing each storage bag of the above 2nd - the 5th example.

[0041] Moreover, it cannot be overemphasized that the opening approach of the storage bag concerning this invention is not what is limited to opening of the storage bag 1 of the 1st example of the above.

[0042]

[Effect of the Invention] According to the opening approach of a storage bag, the following effectiveness can be done so in the storage bag concerning this invention and its manufacture approach, and a list. According to the storage bag according to claim 1, where the above-mentioned la Gazette section and the above-mentioned band are bent By making it deform so that it may counter, where it inserted the plate for storage bag openings between the above-mentioned lateral portion and the above-mentioned band, it rotated this plate to the circumference of the shaft of the path of insertion and the inside and the above-mentioned la Gazette section of the above-mentioned band are extended mutually easy in a storage bag — and it is stabilized, opening can be carried out widely and receipt of subsequent goods is also easy. Moreover, since the configuration is easy, manufacture is also easy.

[0043] the effectiveness [according to the storage bag according to claim 2] in a storage bag according to claim 1 — in addition, the width of face of the above-mentioned lateral portion formed when the die length in the condition of having lengthened this band except a part for jointing lengthens the above-mentioned la Gazette section and abbreviation — since it is the same die length, it is stabilized and opening can be carried out widely, and still easier and when opening is carried out, a lateral portion can be supported for a storage bag still more certainly. Moreover, since it will hide [the condition of having been extended] by the inside of a band while the both ends of a band hide where the storage bag concerned is folded up since the both ends of the above-mentioned band have pasted the la Gazette section of the above-mentioned storage bag, a fine sight is not spoiled.

[0044] According to the manufacture approach of a storage bag according to claim 3, the storage bag of this invention which does the above-mentioned effectiveness so can be manufactured easily.

[0045] easy in the storage bag of this invention which does the above-mentioned effectiveness so according to the opening approach of a storage bag according to claim 4 — and it is stabilized and opening can be carried out widely. Moreover, since an opening condition is stabilized and is maintained with the plate for each above-mentioned storage bag openings, receipt of subsequent goods can also be performed easily.

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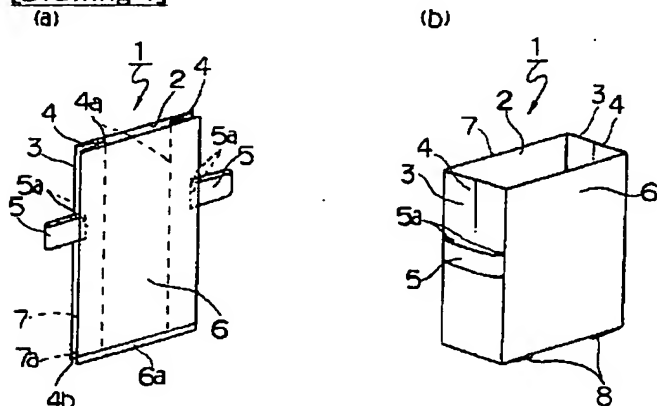
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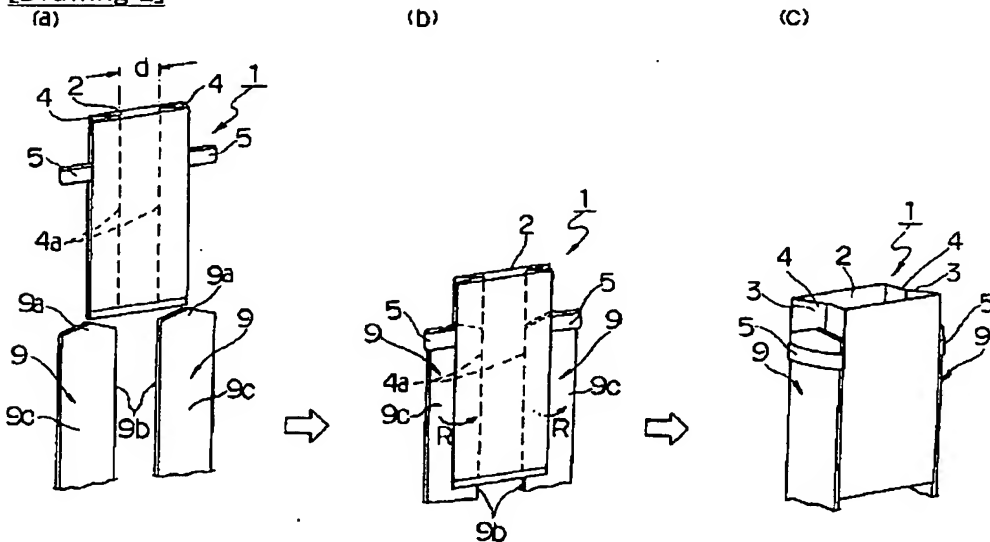
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DRAWINGS

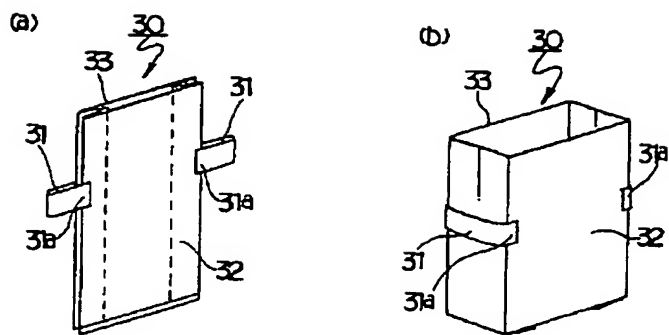
[Drawing 1]



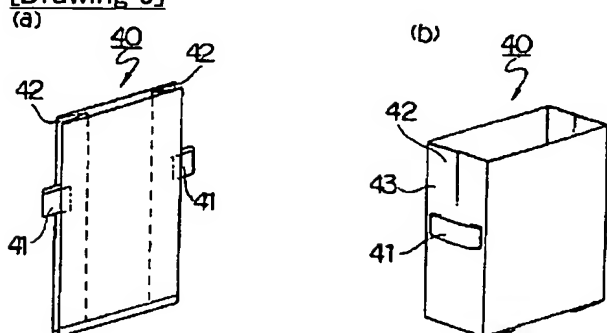
[Drawing 2]



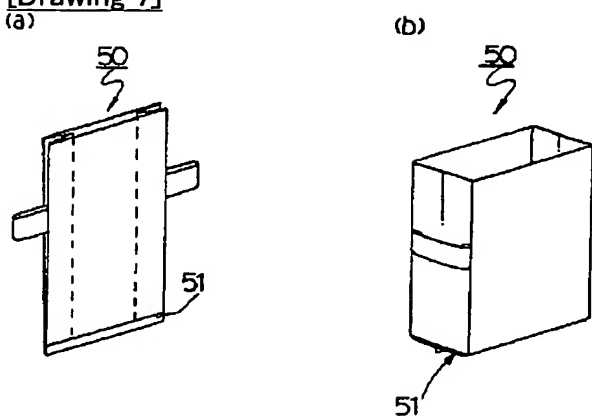
[Drawing 5]



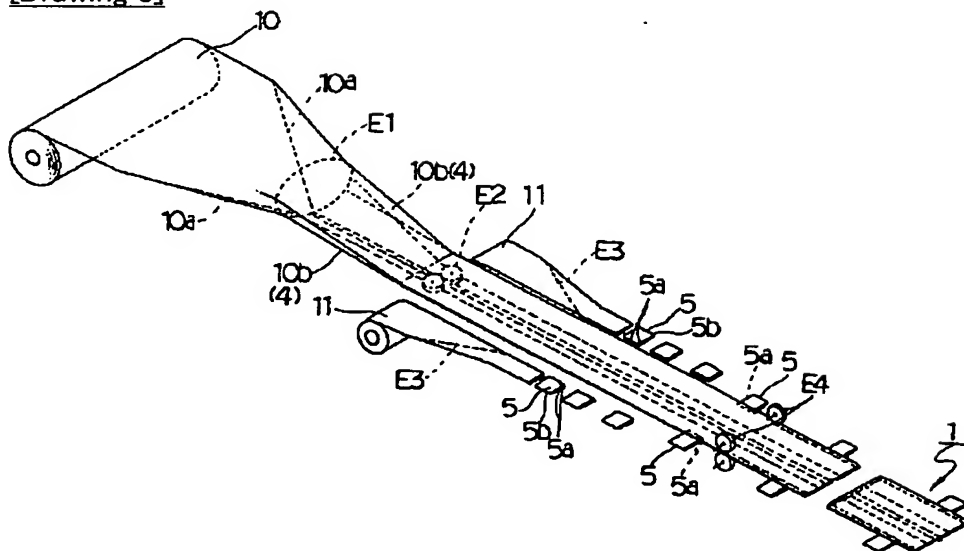
[Drawing 6]



[Drawing 7]

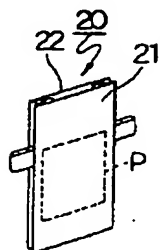


[Drawing 3]

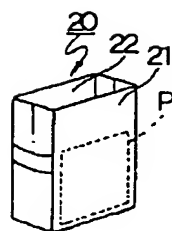


[Drawing 4]

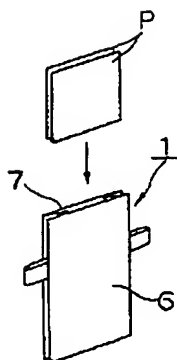
(a)



(b)



(c)



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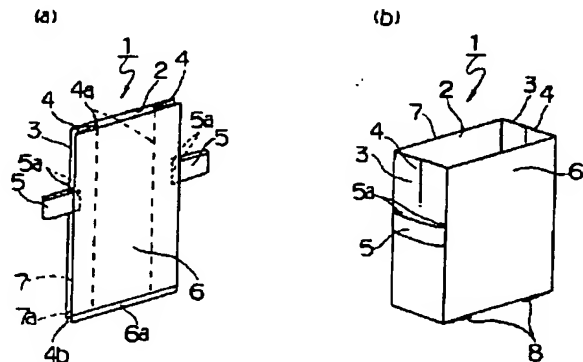
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(54)【発明の名称】 収納袋及びその製造方法、並びに収納袋の開口方法

(57)【要約】

【目的】 容易且つ安定して広く開口でき、その後の物品の収納も容易で、且つ製造も容易な収納袋の提供。

【構成】 上方に向けて開口する開口部2を備えるとともに、側面部3の幅方向中間部が折曲基部4aとして内方に折曲されて形成されたガゼット部4を備えた有底筒状の収納袋において、ガゼット部4に、ガゼット部4を折曲した状態において外側に折曲突出し且つ該ガゼット部4を伸ばした状態において内面がガゼット部4に対向する収納袋開口用のバンド5が設けられており、バンド5と側面部3との間には、その間に収納袋開口用の板状体が挿入可能になしてある。



【特許請求の範囲】

【請求項 1】 上方に向けて開口する開口部 2 を備えるとともに、側面部 3 の幅方向中間部が折曲基部 4 a として内方に折曲されて形成されたガゼット部 4 を備えた有底筒状の収納袋において、

上記ガゼット部 4 に、該ガゼット部 4 を折曲した状態において外側に折曲突出し且つ該ガゼット部 4 を伸ばした状態において内面が該ガゼット部 4 に対向する収納袋開口用のバンド 5 が設けられており、該バンド 5 と上記側面部 3 との間は、その間に収納袋開口用の板状体が挿入可能になしてあることを特徴とする収納袋。

【請求項 2】 上記バンド 5 の両端部 5 a が上記ガゼット部 4 に接着されており、且つその接着部分を除く該バンド 5 の長さが、上記ガゼット部 4 を伸ばしたときに形成される上記側面部 3 の幅と略同じ長さであることを特徴とする請求項 1 記載の収納袋。

【請求項 3】 請求項 1 又は 2 に記載の収納袋の製造方法であって、
帯状の袋形成材 10 を長さ方向に搬送しながらその幅方向両端部 10 a を巻き込んで該袋形成材 10 を筒状に形成し、

次いで、該筒状に形成された袋形成材 10 を、その周壁部の両側部 10 b を内方に折曲して上記ガゼット部 4 を形成するように偏平状に折畳み、

次いで上記袋形成材 10 の上記幅方向両端部 10 a をシールし、

次いで、半折りにしたバンド 5 を、その折曲部 5 b を外側に向けて上記シールした袋形成材 10 の両側部に供給して該バンド 5 の両端部 5 a を該袋形成材 10 に接着し、

次いで、上記袋形成材 10 を、その長さ方向に所定間隔でシールするとともに、そのシール位置の搬送方向後方で切断することを特徴とする収納袋の製造方法。

【請求項 4】 請求項 1 又は 2 に記載の収納袋の開口方法であって、該収納袋を上記ガゼット部 4 及び上記バンド 5 を折曲した偏平状態で供給し、次いで該折り曲げたガゼット部 4 及びバンド 5 の間に、一対の収納袋開口用の板状体 9 を挿入し、次いで該板状体 9 を挿入方向の軸回りに略 90° 回転させて開口することを特徴とする収納袋の開口方法。

【発明の詳細な説明】

【0001】

【産業上の利用分野】 本発明は、ガゼット部を備えた収納袋及びその製造方法、並びに収納袋の開口方法に関する。

【0002】

【従来の技術及び発明が解決しようとする課題】 周知のように、側面部の幅方向中間部が折曲基部として内方に折曲されて形成されたガゼット部を備えた有底筒状の収納袋（いわゆるガゼット袋）は、製造工程において偏平

に平折りされて製造される。そして、上記ガゼット部を伸ばして開口部を開口し、内部に物品を収納している。

【0003】 斯る収納袋の開口方法に関する従来技術として、収納袋の正面及び背面を吸着盤で負圧吸引して開口させる方法が知られているが、吸着盤による吸着作用のみでは、開口部を広く開口させることができず、また収納袋の保持も不安定であるため、その後に連続して物品を収納する場合には、袋を支持する何等かの手段を講じなければならなかった。

【0004】 また、他の従来技術として、実開昭 55-90506 号公報において、固定爪及び作動爪を有する 4 基の挟持体を備えた装置を使用し、収納袋の四隅を上記挟持体で挟持し、該挟持体を開口部を広げる方向に移動させる方法が提案されているが、上記の各爪で収納袋の四隅を挟持するため挟持面積が狭く、また挟持力もスプリングの弾性力で得ているため、安定性に欠ける課題を有している。

【0005】 本発明の目的は、容易且つ安定して広く開口でき、その後の物品の収納も容易で、且つ製造も容易な、収納袋及びその製造方法、並びに該収納袋の開口方法を提供することにある。

【0006】

【課題を解決するための手段】 本発明の請求項 1 に記載の発明は、上方に向けて開口する開口部を備えるとともに、側面部の幅方向中間部が折曲基部として内方に折曲されて形成されたガゼット部を備えた有底筒状の収納袋において、上記ガゼット部に、該ガゼット部を折曲した状態において外側に折曲突出し且つ該ガゼット部を伸ばした状態において内面が該ガゼット部に対向する収納袋開口用のバンドが設けられており、該バンドと上記側面部との間は、その間に収納袋開口用の板状体が挿入可能になしてあることを特徴とする収納袋を提供することにより、上記目的を達成したものである。

【0007】 また、本発明の請求項 2 に記載の発明は、請求項 1 に記載の収納袋において、は、上記バンドの両端部が上記ガゼット部に接着されており、且つその接着部分を除く該バンドの長さが、上記ガゼット部を伸ばしたときに形成される上記側面部の幅と略同じ長さであることを特徴とする収納袋を提供するものである。

【0008】 本発明の請求項 3 に記載の発明は、請求項 1 又は 2 に記載の収納袋の製造方法であって、帯状の袋形成材を長さ方向に搬送しながらその幅方向両端部を巻き込んで該袋形成材を筒状に形成し、次いで、該筒状に形成された袋形成材を、その周壁部の両側部を内方に折曲して上記ガゼット部を形成するように偏平状に折畳み、次いで上記袋形成材の上記幅方向両端部をシールし、次いで、半折りにしたバンドを、その折曲部を外側に向けて上記シールした袋形成材の両側部に供給して該バンドの両端部を該袋形成材に接着し、次いで、上記袋形成材を、その長さ方向に所定間隔でシールするととも

に、そのシール位置の搬送方向後方で切断することを特徴とする収納袋の製造方法を提供するものである。

【0009】また、本発明の請求項4に記載の発明は、本発明の収納袋の開口に用いる好ましい開口方法として、請求項1又は2に記載の収納袋の開口方法であって、収納袋を上記ガゼット部及び上記バンドを折曲した偏平状態で供給し、次いで該折り曲げたガゼット部及びバンドの間に、一対の収納袋開口用の板状体を挿入し、次いで該板状体を挿入方向の軸回りに略90°回転させて開口することを中心とする収納袋の開口方法を提供するものである。

【0010】

【作用】本発明の請求項1に記載の収納袋においては、上記ガゼット部及び上記バンドを折り曲げた状態で、上記側面部と上記バンドとの間に収納袋開口用の板状体を挿入し、該板状体をその挿入方向の軸回りに回転させ、上記バンドの内面と上記ガゼット部とが互いに伸びた状態で対向するように変形させることによって、当該収納袋が容易且つ安定して広く開口される。

【0011】本発明の請求項2に記載の収納袋においては、接着部分を除く該バンドの長さが、上記ガゼット部を伸ばしたときに形成される上記側面部の幅と略同じ長さであるので、更に容易且つ安定して収納袋を広く開口することができ、開口した際の側面部の支持も確実になされる。また、上記バンドの両端部が上記収納袋のガゼット部に接着されているので、当該収納袋を折り畳んだ状態では、バンドの両端部がガゼット部内に隠れるとともに、ガゼット部が伸びた状態でも、当該バンドの内面によって接着部分が隠れ、美観を損なわない。

【0012】本発明の請求項3に記載の収納袋の製造方法においては、まず、帯状の袋形成材が長さ方向に搬送されながらその幅方向両端部が巻き込まれて該袋形成材が筒状に形成される。次いで、該筒状に形成した袋形成材の周壁部の両側部が内方に折曲されて上記ガゼット部が形成されるように偏平状に折畳まれる。次いで、上記袋形成材の上記幅方向両端部がシールされる。次いで、半折りにしたバンドが、その折曲部を外側に向けて上記シールした袋形成材の両側部に供給されて該バンドの両端部が該袋形成材に接着される。次いで、上記袋形成材がその長さ方向に所定間隔でシールされ、そのシール位置の搬送方向後方で切断される。

【0013】本発明の請求項4に記載の収納袋の開口方法においては、収納袋が、上記ガゼット部及び上記バンドが折曲された偏平状態で供給され、次いで該折り曲げられたガゼット部及びバンドの間に、一対の収納袋開口用の板状体が挿入され、次いで該板状体が挿入方向の軸回りに略90°回転させられることによって、上記ガゼット部が伸びた状態となるとともに、側面部が上記開口用板状体によって支持されて収納袋が容易且つ安定して広く開口した状態となる。そして、ガゼット部が内側へ

の折れ曲りが抑えられ、開口状態が安定して維持され、その後の物品の収納も容易に行われる。

【0014】

【実施例】以下、本発明の実施例を添付図面を参照しながら詳細に説明する。

【0015】図1は、本発明に係る収納袋の第1実施例を示したものである。図において、符号1は収納袋を示している。

【0016】図1に示したように、上記収納袋1は、上方に向けて開口する開口部2と、側面部3の幅方向中間部が折曲基部4aとして内方に折曲されて形成されたガゼット部4とを備えた有底筒状の形態を有している。

【0017】図1(a)に示すように、上記ガゼット部4には、ガゼット部4を折曲した状態において、収納袋1から外側に折曲突出するように収納袋1開口用のバンド5が設けられている。また、このバンド5は、図1(b)に示すように、ガゼット部4を伸ばした状態において、その内面側がガゼット部4に略平行に対向するように設けられている。そして、バンド5と上記側面部3との間は、その間に後述する収納袋開口用の板状体9が挿入可能になしてある

【0018】上記バンド5は、両端部5aの外側側面が上記ガゼット部4に接着されており、その接着部分を除いた長さが、上記ガゼット部4を伸ばしたときに形成される上記側面部3の幅と略同じ長さに設定されている。

【0019】また、本実施例において、上記ガゼット部4の下端部4bは、隣接する正面部6の下端部6a又は背面部7の下端部7aと所定幅で接着されているが、ガゼット部4の下端部4bの互いに対向する部分は接着されていない。

【0020】そして、上記ガゼット部4及びバンド5を折り曲げた状態において、その開口部2がほとんど閉じた偏平の形態となり(図1(a)参照)ガゼット部4及びバンド5を伸ばした状態において、開口部2が広く開いた形態となり、更に、ガゼット部4の折曲基部4aの下方を外側に膨出させることによって、安定した底部8が形成されるようになしてある(図1(b)参照)。

【0021】本発明において、収納袋を形成する袋形成材は、特に制限されるものではないが、本発明の収納袋を粉末洗剤等を収納する収納袋に適用する場合には、熱溶着するために最内層にL-LDPEをラミネートした軟質のフィルム等が好ましく使用される。また、本発明において、バンドを形成するバンド形成材は、特に制限されるものではないが、本発明の収納袋を粉末洗剤等を収納する収納袋に適用する場合には、熱溶着面にL-LDPEをラミネートしたフィルム等が好ましく使用される。

【0022】次に、本発明に係る収納袋の開口方法を、上記実施例の収納袋1による実施に基づいて、図2(a)～(c)を参照しながら説明する。

【0023】まず、先端部9aが先細りに尖るとともに上記収納袋1の側面部3の幅に略等しい幅を有する一対の収納袋開口用の板状体9を、その互いに対向する内端部9bを上記収納袋1のガゼット部4の折曲基部4aの間隔dに合せ、且つその板面9cを略面一となるようにして直立状態に配設する。そして、上記収納袋1を上記ガゼット部4及び上記バンド5を折曲した扁平状態で、その開口部2を上方に向けて上記板状体9の上方に供給する(図2(a)参照)。

【0024】次いで、図2(b)に示したように、上記ガゼット部4の折曲基部4aに上記板状体9の内端部9bを沿わせるように該板状体9を移動させ、折曲したガゼット部4及びバンド5の間に、上記板状体9を挿入する。本実施例では、板状体9を上方に移動させて挿入させているが、収納袋1の剛性によっては、板状体9のほうを定位置に固定しておき、収納袋1を下方に移動させて板状体9をガゼット部4及びバンド5の間に挿入させてもよい。

【0025】次いで、挿入した一対の板状体9を、挿入方向の軸回り(矢印R)に略90°それぞれ同方向若しくは逆方向に回転させる。

【0026】そして、図2(c)に示したように、上記開口部2を略最大限開口させる。このとき、上記ガゼット部4及びバンド5間にある板状体9が収納袋1をその側面部3の両脇から支持することとなるため、ガゼット部4が内側への折れ曲りが抑えられ、開口状態が安定して維持される。

【0027】このように、上記実施例の収納袋1及びこれを用いた本発明の収納袋の開口方法によれば、バンド5を伸ばした状態において、その両端部5aの接着部を除く長さが、上記ガゼット部4を伸ばしたときに形成される上記側面部3の幅と略同じ長さであるので、当該収納袋1を容易且つ安定して広く開口することができる。また、上記バンド5の両端部5aが、収納袋1のガゼット部4に接着されているので、当該収納袋1を折り畳んだ状態では、バンド5の両端部5aが隠れるとともに、伸ばした状態でもバンド5の内面で隠れることとなるので、美観を損なわない。更に、構成が簡単であるので製造も容易である。加えて、開口した際に形成される側面部3を上記各板状体9によって確実に支持することができるので、開口状態が安定して維持され、その後の物品の収納も容易に行うことができる。特に、図2(c)の状態、板状体9ごと収納工程へ移動させることで、収納袋の開口状態を保ったまま安定して搬送することができる。

【0028】次に、本発明に係る収納袋の製造方法を、上記実施例の収納袋1の製造に基づいて、図3を参照しながら説明する。なお、図3においては、便宜上、搬送手段、カッティング装置等の図示は省略している。

【0029】まず、ロール状に巻回された帯状の袋形成

材10を長さ方向に搬送しながら、その幅方向両端部10aを製袋装置E1で下方に巻き込んで袋形成材10を筒状に形成する。

【0030】次いで、上記筒状に形成された袋形成材10を、その周壁部の両側部10bを内方に折曲して上記収納袋1の上記ガゼット部4を形成するように上下方向に扁平状(いわゆるガゼット折り)に折り畳んだ状態でさらに前方に搬送する。

【0031】次いで、上記袋形成材10の上記幅方向両端部10aをセンターシール装置E2によって熱溶着してシールする。

【0032】次いで、ロール状に巻回された帯状のバンド形成材11を、その長手方向を搬送方向として上記袋形成材10の両側から搬送しながら折曲装置E3で半折りにし、この半折りにした帯状のバンド形成材11を、所定長さ毎にカッティング装置(図示せず)で切断し、上記バンド5を形成する。

【0033】次いで、このバンド5を、その折曲部5bを外側に向けて上記シールした袋形成材10の両側部に供給し、その両端部5aを袋形成材10の上記ガゼット部4を形成するために折り曲げた箇所に配設し、該両端部5aの外側側とガゼット部4を形成する部分とをシール装置E4によって熱溶着して接着する。この際、バンド5の接着と同時に袋形成材11の四隅(収納袋における側面部と正面部又は背面部とのなす角部)を所定幅で長さ方向(収納袋における高さ方向)に熱溶着し、製造する収納袋の剛性を高めるようにすることもできる。

【0034】次いで、上記袋形成材10を、その長さ方向に所定間隔でシール装置(図示せず)で熱溶着してシールし、さらにそのシール位置の搬送方向後方側においてカッティング装置(図示せず)で切断し、上記収納袋1の製造を完了する。

【0035】以上の工程を袋形成材10の搬送速度に応じて行うことによって、上記効果を奏する収納袋1を連続的に安定して製造することができる。

【0036】本発明に係る収納袋は、上記実施例の収納袋1に限定されるものではなく、本発明の目的を逸脱しない範囲において、その寸法、形状等を適宜変更することができる。

【0037】例えば、図4の(a)及び(b)に示す第2実施例の収納袋20のように、正面部21及び背面部22の内面に補強板Pを貼着し、その剛性を高めて開口性をさらに向上させるとともに、物品収納後の収納袋の外観を美しくすることもできる。この第2実施例の収納袋20は、例えば、図4(c)に示すように、補強板Pを上記実施例の収納袋1の上方より挿入して、その正面部6及び背面部7に接着剤等で貼着することにより、簡単に製造することができる。上記補強板Pは剛性が秤量300~600g/m²の板紙と同程度であるものであればその素材等は特に制限されるものではないが、例え

ば、紙、プラスチック等の素材からなるもので、厚さが、0.3～1.0mm程度のものが好ましく使用される。

【0038】また、図5(a)及び(b)に示す第3実施例の収納袋30のように、バンド31の両端部31aの内面側を正面部32及び背面部33に接着させることもできる。更に、袋形成材が比較的高い剛性を有している場合には、図6(a)及び(b)に示す第4実施例の収納袋40のように、バンド41の接着部を除く長さ

を、ガゼット部42を伸ばした状態において形成される側面部43の幅よりも短くすることもできる。

【0039】更に、収納袋の底部の形態についても、上記実施例の収納袋1の底部8の形態に限定されるものではなく、図7(a)及び(b)に示す第5実施例の収納袋50の底部51のような形態とすることもできる。

【0040】本発明に係る収納袋の製造方法は、上記第1実施例の収納袋1の製造に限定されるものではないことは言うまでもなく、上記第2～第5実施例の各収納袋を製造する場合には、その形態に応じて製造工程を適宜変更することができる。

【0041】また、本発明に係る収納袋の開口方法は、上記第1実施例の収納袋1の開口に限定されるものではないことは言うまでもない。

【0042】

【発明の効果】本発明に係る収納袋及びその製造方法、並びに収納袋の開口方法によれば、以下の効果を奏することができる。請求項1に記載の収納袋によれば、上記ガゼット部及び上記バンドを折り曲げた状態で、上記側面部と上記バンドとの間に収納袋開口用の板状体を挿入し、該板状体をその挿入方向の軸回りに回転させ、上記バンドの内面と上記ガゼット部とが互いに伸びた状態で対向するように変形させることで、収納袋を容易且つ安定して広く開口することができ、その後の物品の収納も容易である。また、構成が簡単であるので製造も容易である。

【0043】請求項2に記載の収納袋によれば、請求項1に記載の収納袋における効果に加えて、接着部分を除く該バンドを伸ばした状態の長さが、上記ガゼット部を伸ばしたときに形成される上記側面部の幅と略同じ長さであるので、収納袋をさらに容易且つ安定して広く開口することができ、開口した際に側面部をさらに確実に支持することができる。また、上記バンドの両端部が上記収納袋のガゼット部に接着されているので、当該収納袋を折り畳んだ状態では、バンドの両端部が隠れるとともに、伸びた状態でもバンドの内面で隠れることとなるので、美観を損なわない。

【0044】請求項3に記載の収納袋の製造方法によれ

ば、上記効果を奏する本発明の収納袋を容易に製造することができる。

【0045】請求項4に記載の収納袋の開口方法によれば、上記効果を奏する本発明の収納袋を、容易且つ安定して広く開口できる。また、上記各収納袋開口用の板状体によって、開口状態が安定して維持されるので、その後の物品の収納も容易に行うことができる。

【図面の簡単な説明】

【図1】本発明に係る収納袋の第1実施例を示す図であり、(a)はガゼット部を折曲した状態を示す斜視図、(b)はガゼット部を伸ばした状態を示す斜視図である。

【図2】同実施例の収納袋の開口方法の手順を示す図であり、(a)はガゼット部と開口用バンドとの間に開口用板状体を挿入している状態を示す斜視図、(b)は上記開口用板状体の挿入を完了した状態を示す斜視図、(c)は上記開口用板状体を回転させて収納袋を開口させた状態を示す斜視図である。

【図3】同実施例の収納袋の製造工程の概略を示す斜視図である。

【図4】本発明に係る収納袋の第2実施例を示す図であり、(a)はガゼット部を折曲した状態を示す斜視図、(b)はガゼット部を伸ばした状態を示す斜視図、(c)はその製造工程を示す斜視図である。

【図5】本発明に係る収納袋の第3実施例を示す図であり、(a)はガゼット部を折曲した状態を示す斜視図、(b)はガゼット部を伸ばした状態を示す斜視図である。

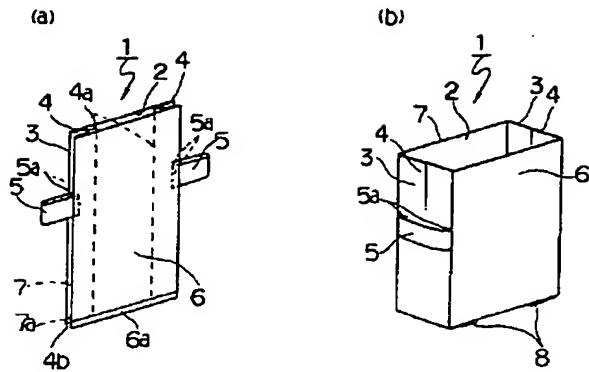
【図6】本発明に係る収納袋の第4実施例を示す図であり、(a)はガゼット部を折曲した状態を示す斜視図、(b)はガゼット部を伸ばした状態を示す斜視図である。

【図7】本発明に係る収納袋の第5実施例を示す図であり、(a)はガゼット部を折曲した状態を示す斜視図、(b)はガゼット部を伸ばした状態を示す斜視図である。

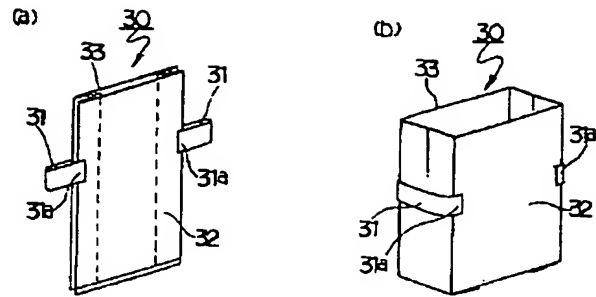
【符号の説明】

- 1 収納袋
- 2 開口部
- 3 側面部
- 4 ガゼット部
- 4a 折曲基部
- 5 収納袋開口用のバンド
- 5a 両端部
- 9 収納袋開口用の板状体
- 10 袋形成材
- 11 バンド形成材

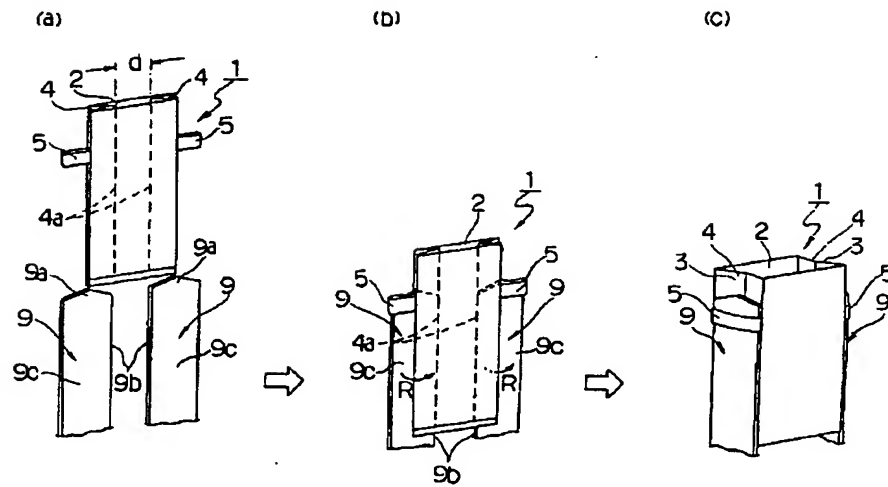
【図1】



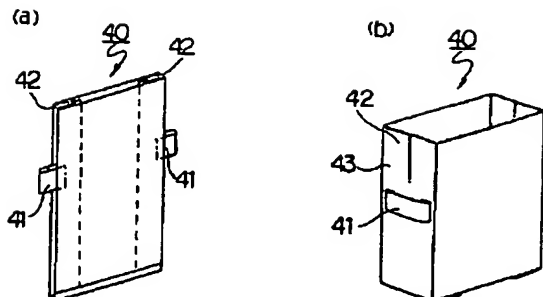
【図5】



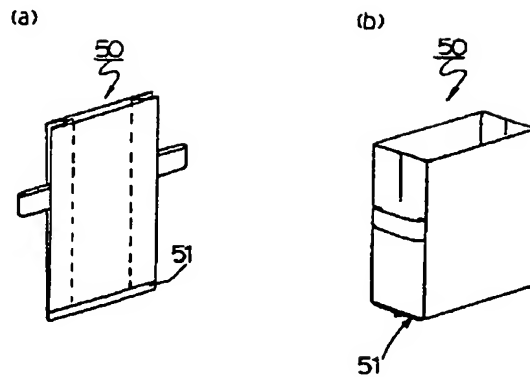
【図2】



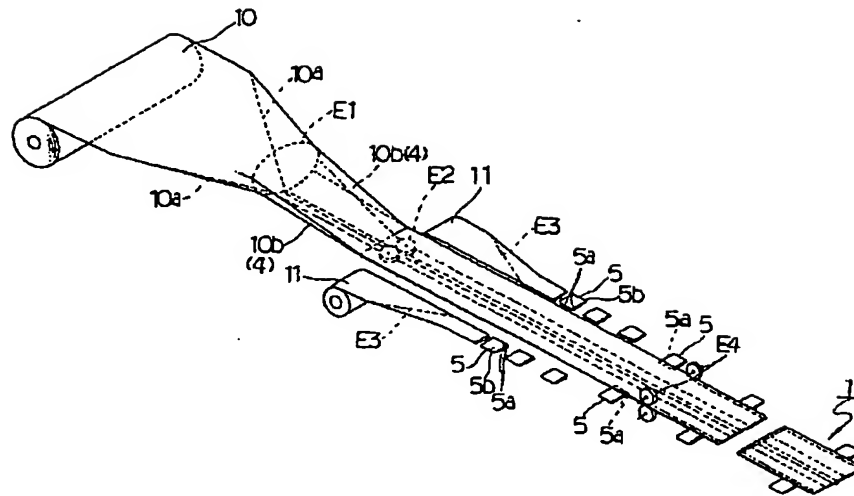
【図6】



【図7】



【図3】



【図4】

